(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 552 580 A3**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **92480193.9**

(51) Int. Cl.[6]: **G06F 3/06**

(22) Date of filing: **10.12.92**

(30) Priority: **24.01.92 US 824962**

(43) Date of publication of application:
28.07.93 Bulletin 93/30

(84) Designated Contracting States:
DE FR GB

(88) Date of deferred publication of the search report:
01.03.95 Bulletin 95/09

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(54) Data storage method and apparatus for DASD arrays.

(57) In a data storage method for checksum DASD arrays, files are classified by length and/or other characteristic. Each relatively shorter file is written to an address or contiguous addresses typically on a single DASD of the array. The checksum stored on a checksum DASD is updated by reading the existing checksum, XORing that with the new data and writing the new checksum. Each relatively longer file is subdivided into portions all of the same size, and the number of equal portions is equal to the number of data DASDs where the file is to be written. The portions are interleaved in a stripe of addresses on the data DASDs, and the checksum of the portions is written to the checksum DASD. The characteristic transition length is dynamically varied in order that each interleaved file is provided with contiguous addresses matched to the file size.

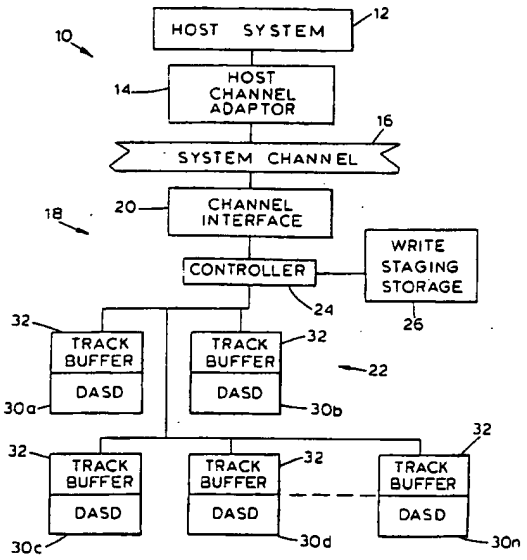

FIG.1

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EUROPEAN SEARCH REPORT

Application Number
EP 92 48 0193

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
X	EP-A-0 320 107 (MICROPOLIS CORPORATION)	1-3, 8-11,14, 16,19	G06F3/06
A	* figure 1 * * abstract * * column 2, line 14 - line 20 * * column 5, line 23 - line 39 * ---	1,4,13	
A	COMPUTER ARCHITECTURE NEWS, vol.19, no.2, April 1991, NEW YORK US E.K.LEE ET AL., 'PERFORMANCE CONSEQUENCES OF PARITY PLACEMENT IN DISK ARRAYS' * figures 1-3 * * page 192, right column, line 1 - line 14 * -----	1-3, 8-12,14, 19	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5)
			G06F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	29 December 1994	Weiss, P

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

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EPO FORM 1503 03.82 (P04C01)